

District 05 Mobility Performance Report

2017 Third Quarter

DEPARTMENT OF TRANSPORTATION

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2017 Third Quarter

EXECUTIVE SUMMARY

Overview

Caltrans District 5 contains five counties located in central coast California: Santa Barbara, San Luis Obispo, Monterey, Santa Cruz and San Benito Counties. There is no detection in San Benito County currently. All of the counties are in an urban setting within the cities limit and rural outside city limit. Santa Cruz and Monterey are the top two most congested counties in the 3rd quarter.

The Mobility Performance quarterly analysis compares information with over a year ago and over last quarter in the following performance measures:

- Vehicle Miles of Travel (VMT))
- Vehicle Hours of Delay (VHD), Bottleneck Locations
- Lost Lane Miles (equivalent lost productivity)
- Detector Health

This information is based on data collected every day of the quarter, twenty-four hours a day, by automated vehicle detector stations deployed on urban-area freeways where congestion is regularly experienced. The MPR presents congestion information at two speed thresholds: delay from vehicles traveling below 35 miles per hour (mph), and delay from vehicles traveling below 60 mph. The delay at the 35 mph threshold represents severe congestion while delay at 60 mph represents all congestion, both light and heavy. These thresholds are set by Caltrans and are based upon engineering experience and District input.

FINDINGS

In the third quarter, total delay equaled 467,500 thousands vehicle hours of delay (VHD) at the 35 mph speed threshold, and 970,400 thousand VHD at the 60 mph threshold. The average weekday delay experienced in this quarter was approximately 5,400 thousand VHD at 35 mph, and 11,000 thousand VHD at 60 mph.

Top Ten Bottlenecks for Quarter 3

County	Fwy	Location	Type	Shift	Abs PM	CA PM	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (mins)
SCR	SR1-S	STATE PARK DR AT HWY 1 SB VDS ML	ML	PM	362.07	10.772	59	4.13729	28349	6955
MON	SR1-N	CASA VERDE WAY HWY 1 SB VDS MLNB	ML	PM	329.082	78.547	49	2.6	19455	6445
SCR	SR1-S	PARK AVE AT HWY 1 NB VDS MLSB SB	ML	PM	363.178	11.88	63	2.7	13699	5410
SLO	US101-S	SPYGLASS DR 101 SB VDS MLSB SB	ML	PM	193.322	19.797	54	2.52963	12548.5	6250
SCR	SR1-S	SOQUEL DR NEXT EXIT SIGN HWY 1 N	ML	PM	365.708	14.41	53	1.6	11017	6735
SCR	SR1-N	41ST ST EXIT AT HWY 1 SB VDS MLN	ML	AM	365.27	13.929	53	3.7	9951	3805
SB	US101-S	SANTA CLAUS LANE 101 SB VDS MLSB	ML	PM	87.528	4.63200	63	1.7	9879	9910
SCR	SR1-S	NB1 to NB 17 conn	ML	PM	368.018	16.72	43	8.9	8678	2905
MON	SR1-N	CANYON DEL REY BLVD AT HWY 1 NB	ML	PM	330.075	79.54	63	1.4	8255	8775
SCR	SR1-N	RIO DEL MAR BLVD AT HWY 1 SB VDS	ML	AM	360.894	9.553	40	3.0	3835	2045

Potential Senate Bill 1 funding projects:

In Santa Cruz County, SCCRTC has an ongoing 8.25 miles long HOV & Transportation System Management (TSM – ramp meter and auxiliary lane) project currently in the PA&ED phase. This freeway corridor is experiencing a recurring a.m. northbound and p.m. southbound congestion daily during the weekdays. Both directions are currently experiencing a congestion that spans 6 hours long during the peak commute direction and queue extends 10 miles or longer.

In Santa Barbara County, SBCAG has an ongoing 12 miles long HOV project currently in the PA&ED phase. This freeway corridor is experiencing a recurring a.m. northbound and p.m. southbound congestion daily during the weekdays. Both directions are currently experiencing a congestion that spans 3-5 hours long during the peak commute direction and queue extends 11 miles or longer.

In Monterey County, this 11.5 miles long freeway corridor between Holman Highway interchange and Reservation Road interchange is experiencing a recurring a.m. southbound and p.m. northbound congestion daily during the weekdays. Both directions are currently experiencing a congestion that spans 1.5 hours long during the peak commute direction and

queue extends 5 miles or longer. Any combination of the HOV, Managed Lane, TSM/ITS could all be possible congestion relief solutions to the recurring congestion in this corridor.

In San Luis Obispo County, US 101 southbound in the Pismo Beach is experiencing a recurring congestion daily in the p.m. peak period for about 45-60 minutes. The queue length is approximately in the 2 to 2.5 miles long. During the shoulder hours, the freeway operates at free flow speed. SLOCOG has identified this segment of the freeway as the most congested segment in the county and has initiated the PA&ED phase of a Part Time Managed Shoulder Lane in the median with ITS elements during the peak period in the southbound direction. By utilizing a part shoulder lane, it is anticipated that it will help relief the congestion during the p.m. peak period. Potentially, the northbound direction could also reap the same benefit if the same strategy is applied but no plan is currently on the books for the northbound direction.

All the above projects or potential projects are excellent congestion relief investment in the above District 5 Counties using the SB 1 funds.

Quarterly Mobility Statistics

Measure	Graph	Percentage Change									
Vehicle Miles of Travel (VMT)	<table><tr><th>Quarter</th><th>VMT (Millions)</th></tr><tr><td>2016 Q3</td><td>779.3</td></tr><tr><td>2017 Q2</td><td>854.4</td></tr><tr><td>2017 Q3</td><td>848.9</td></tr></table>	Quarter	VMT (Millions)	2016 Q3	779.3	2017 Q2	854.4	2017 Q3	848.9	Over one year ago	Over last quarter
		Quarter	VMT (Millions)								
2016 Q3	779.3										
2017 Q2	854.4										
2017 Q3	848.9										
		8.9% ↑	-0.6% ↓								
Total Vehicle Hours of Delay (VHD) at 35 mph	<table><tr><th>Quarter</th><th>VHD (Thousands)</th></tr><tr><td>2016 Q3</td><td>500.7</td></tr><tr><td>2017 Q2</td><td>472.4</td></tr><tr><td>2017 Q3</td><td>467.5</td></tr></table>	Quarter	VHD (Thousands)	2016 Q3	500.7	2017 Q2	472.4	2017 Q3	467.5	Over one year ago	Over last quarter
		Quarter	VHD (Thousands)								
2016 Q3	500.7										
2017 Q2	472.4										
2017 Q3	467.5										
		-6.6% ↓	-1% ↓								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<table><tr><th>Quarter</th><th>VHD (Hours)</th></tr><tr><td>2016 Q3</td><td>5849</td></tr><tr><td>2017 Q2</td><td>5306</td></tr><tr><td>2017 Q3</td><td>5424</td></tr></table>	Quarter	VHD (Hours)	2016 Q3	5849	2017 Q2	5306	2017 Q3	5424	Over one year ago	Over last quarter
		Quarter	VHD (Hours)								
2016 Q3	5849										
2017 Q2	5306										
2017 Q3	5424										
		-7.3% ↓	2.2% ↑								
Total Vehicle Hours of Delay (VHD) at 60 mph	<table><tr><th>Quarter</th><th>VHD (Thousands)</th></tr><tr><td>2016 Q3</td><td>937.9</td></tr><tr><td>2017 Q2</td><td>974.1</td></tr><tr><td>2017 Q3</td><td>970.4</td></tr></table>	Quarter	VHD (Thousands)	2016 Q3	937.9	2017 Q2	974.1	2017 Q3	970.4	Over one year ago	Over last quarter
		Quarter	VHD (Thousands)								
2016 Q3	937.9										
2017 Q2	974.1										
2017 Q3	970.4										
		3.5% ↑	-0.4% ↓								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<table><tr><th>Quarter</th><th>VHD (Thousands)</th></tr><tr><td>2016 Q3</td><td>11</td></tr><tr><td>2017 Q2</td><td>11</td></tr><tr><td>2017 Q3</td><td>11</td></tr></table>	Quarter	VHD (Thousands)	2016 Q3	11	2017 Q2	11	2017 Q3	11	Over one year ago	Over last quarter
		Quarter	VHD (Thousands)								
2016 Q3	11										
2017 Q2	11										
2017 Q3	11										
		4.4% ↑	1% ↑								

Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph		Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		Saturday -2.7%	Sun/Hol -17.7%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Wednesday 10.3%	Tuesday 17.8%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Weekday Decrease over one year ago	Largest Magnitude Weekday Decrease over last quarter
		3 PM -21.3%	10 AM -41.7%
		Largest Magnitude Weekday Increase over one year ago	Largest Magnitude Weekday Increase over last quarter
		8 AM 24.8%	5 PM 6.1%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Saturday Decrease over one year ago	Largest Magnitude Saturday Decrease over last quarter
		1 PM -19.2%	9 AM -58.2%
		Largest Magnitude Saturday Increase over one year ago	Largest Magnitude Saturday Increase over last quarter
		11 AM 16.6%	11 AM 31.3%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/Holidays		Largest Magnitude Sun./Holiday Decrease over one year ago	Largest Magnitude Sun./Holiday Decrease over last quarter
		4 PM -35.1%	5 PM -55.2%
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
		12 PM 32.9%	11 AM 37.9%

Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph	<p>Hours (Thousands)</p> <p>■ 2016 Q3 ■ 2017 Q2 ■ 2017 Q3</p>	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		Monterey -27.6%	Santa Cruz -5.4%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Santa Cruz 16.2%	Monterey 18%
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph	<p>Miles</p> <p>■ 2016 Q3 ■ 2017 Q2 ■ 2017 Q3</p>	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		PM Peak -29.3%	PM Peak -8.9%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Off-Peak Night 44.4%	Off-Peak Night 156%
Average Number of Good and Bad Detectors	<p>Number of Detectors</p> <p>■ Average of Good ■ Average of Bad</p>	Change in Good over one year ago	Change in Good over last quarter
		8%	-2%
		Change in Bad over one year ago	Change in Bad over last quarter
		98%	10%

Congestion by Route

Route	County	Vehicle Hours of Delay at 35 mph			Difference 2017 Q3-2016 Q3		Difference 2017 Q3-2017 Q2		Rank		
		2016 Q3	2017 Q2	2017 Q3	Absolute	Percentage	Absolute	Percentage	2016 Q3	2017 Q2	2017 Q3
SR1	Santa Cruz	186,941	210,840	229,236	42,295	22.6%	18,396	8.7%	1	1	1
SR1	Monterey	116,711	64,783	84,182	-32,529	-27.9%	19,399	29.9%	2	3	2
US101	Santa Barbara	107,717	91,929	82,588	-25,130	-23.3%	-9,341	-10.2%	3	2	3
US101	San Luis Obispo	45,477	32,822	37,511	-7,966	-17.5%	4,689	14.3%	4	5	4
SR17	Santa Cruz	31,833	57,816	24,968	-6,865	-21.6%	-32,848	-56.8%	5	4	5
US101	Monterey	11,985	14,204	9,022	-2,963	-24.7%	-5,182	-36.5%	6	6	6
TOTALS		500,665	472,392	467,506	-33,159	-6.6%	-4,886	-1.0%			